

Listing of Claims

1. (previously presented) An inking and cleaning system for use on a printing press, the system comprising:

a fluid circuit having a first operating configuration wherein the fluid circuit is adapted to supply an ink to the printing press and a second operating configuration wherein the fluid circuit is adapted to supply a cleaning solution to the printing press, the fluid circuit having a first pump operatively coupled to a source of the ink to circulate the ink through the fluid circuit, the fluid circuit including a second pump operatively coupled to a source of the cleaning solution to circulate the cleaning solution through the fluid circuit, and one or more valves arranged to switch the fluid circuit between the first operating configuration and the second operating configuration;

the supply of the cleaning solution arranged to supply a selected one of a clean rinse or a used flush through the fluid circuit when the fluid circuit is in the second operating configuration;

and

a controller operatively coupled to the fluid circuit and adapted to cause the fluid circuit to switch between the first operating configuration and the second operating configuration, the controller further arranged to supply first the used flush and second the clean rinse through the fluid circuit when the fluid circuit is in the second operating configuration.

2. (previously presented) The system of claim 1, wherein the first operating configuration is adapted to supply the ink from an ink source and return any unused ink to the ink source, and wherein the second operating configuration is adapted to return the used flush solution to a fluid retainer after use.

3. (previously presented) The system of claim 1, wherein the valves are arranged in a first valve configuration placing the fluid circuit in flow communication with an ink source and wherein the valves are arranged in a second valve configuration placing the fluid circuit in flow communication with a cleaning solution source and a used flush solution retainer.

4. (previously presented) The system of claim 1, including a clean solution source and a used solution source, and wherein the fluid circuit is adapted to return the solution from at least one of the clean and used solution sources to the used solution source.

5. (original) The system of claim 4, wherein at least one of the clean solution source and the used solution source further comprises a level transmitter adapted to determine a volume of solution in the solution source.

6. (original) The system of claim 1, further comprising a solution fluid circuit, a solution pump, a solution source, a solution discharge, and at least one solution valve, the solution valve being arranged to place the solution fluid circuit in flow communication with the clean solution source and the used solution source.

7. (previously presented) The system of claim 1, wherein the fluid circuit further comprises a surge suppressing filter disposed between the first pump and the printing press.

8. (original) The system of claim 1, wherein the fluid circuit further comprises at least one flow sensor.

9. (original) The system of claim 1, wherein the fluid circuit is adapted to supply a used solution to the printing press for flushing, and wherein the fluid circuit is further adapted to supply a clean solution to the printing press for rinsing.

10. (canceled)

11. (canceled)

12. (original) The system of claim 1, wherein the system further comprises a display operatively coupled to the controller, the display being adapted to display information to a user.

13. (original) The system of claim 1, wherein the system further comprises a light tower coupled to the controller, the light tower being adapted to display information to a user.

14. (original) The system of claim 1, wherein the fluid circuit is adapted to supply the ink from an ink source to the printing press for use and return any unused ink to the ink source, and wherein the fluid circuit is adapted to supply the solution from a solution source to the printing press for flushing the printing press and return the solution to the solution source after use.

15. (currently amended) An inking and flushing system for use on a chamber doctor blade system, the system comprising:

a fluid circuit having a first operating configuration wherein the fluid circuit is adapted to supply an ink to the printing press via an ink supply pump and a second operating configuration wherein the fluid circuit is adapted to supply a solution to the printing press via a flush pump; the fluid circuit arranged to circulate fluid through the fluid circuit and including one or more valves to switch the fluid circuit between the first operating configuration and the second operating configuration;

an ink station operatively coupled to the ink supply pump and adapted to provide ink to the fluid circuit;

a flush station operatively coupled to the flush pump and adapted provide the solution to the fluid circuit, the solution including a selected one of a flush and a clean rinse; and

a controller operatively coupled to the fluid circuit and adapted to cause the fluid circuit to switch between the first operating configuration and the second operating configuration, the controller further arranged to select a desired one of the flush or the clean rinse when in the second operating configuration;

the controller and the fluid circuit further arranged to provide first the used flush and then the clean rinse when in the second operating configuration;

and wherein the ink supply pump and the flush pump are double diaphragm pumps arranged to supply and return substantially the same volume of fluid.

16. (original) The system of claim 15, wherein the ink station is adapted to supply the ink from the ink station to the fluid circuit for use in the chamber doctor blade system and wherein the ink station is further adapted to return any unused ink to the ink station.

17. (original) The system of claim 15, wherein the flush station further comprises a clean solution source and a used solution source, and wherein the flush station is adapted to supply the solution from at least one of the clean solution source and the used solution source to the fluid circuit for use in flushing the chamber doctor blade system, and wherein the flush station is further adapted to return the solution to the used solution source.

18. (previously presented) The system of claim 15, wherein the ink supply pump and the flush pump are double diaphragm air driven pumps.

19. (original) The system of claim 15, wherein the flush station further comprises a solution fluid circuit, a solution pump, a solution source, and a solution discharge, the solution fluid circuit being adapted to supply solution to the flush station and being adapted to remove solution from the flush station.

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (currently amended) A method of inking and flushing a printing press, the method comprising the steps of:

supplying an ink to an operating printing press through a fluid circuit, the fluid circuit comprising a plurality of fluid lines, a flush separate from an ink pump, and a plurality of valves;

removing ink from the fluid circuit;

supplying a first solution to the operating printing press through the fluid circuit, the first solution comprising first one of a clean solution or a used solution and then a clean rinse;

flushing the operating printing press and the fluid circuit with the first solution;

removing the first solution from the fluid circuit to a used solution storage area;

supplying a second solution to the operating printing press through the fluid circuit, the second solution comprising a clean solution;

flushing the operating printing press and the fluid circuit with the second solution; and removing the second solution from the fluid circuit to the used solution storage area.

25. (original) The method of claim 24, further comprising the step of priming the fluid circuit with at least one of the ink, the first solution, and the second solution.

26. (original) The method of claim 24, further comprising the step of circulating the first solution within the fluid circuit for a period of time.

27. (original) The method of claim 24, further comprising the step of circulating the second solution within the fluid circuit for a period of time.

28. (original) The method of claim 24, further comprising the step of accepting operating parameters from an operator.

29. (original) The method of claim 24, further including the step of removing used solution from the used solution storage area.

30. (original) The method of claim 29, further including the step of monitoring the volume of used solution in the used solution storage area.